

REMARKS

The Examiner noted that one of the references cited in the Specification has not been made the subject of a proper Information Disclosure Statement. The Examiner will please find enclosed a Supplemental Information Disclosure Statement, together with a copy of International Patent Application No PCT/IB02/01001, which is discussed in the Specification. Applicants believe that no fees would be due for the submission of this Supplemental IDS, since the reference being identified in that form now was cited and discussed in the Specification. IF a fee is deemed to be due, please charge the fees therefore to Deposit Account 12-2424.

The Examiner will please note that by the foregoing proposed amendments, the Applicants have also requested an amendment of the Specification to properly reflect the presence of the trademark TEFLON, which has been accompanied by the generic terminology for the TEFLON brand product.

Amendments to claim 19 set forth above are supported in the original disclosure in §[0039] of the published application US 2005/0127843, as well as on Figures 2 to 5.

Turning now to the claim rejections, claims 26 and 33 have been rejected under to 35 U.S.C. §112, second paragraph, for the reasons set forth in numbered paragraphs 5-7 of the Office Action mailed May 24, 2007. Concerning claim 26, it has been amended to depend on claim 25. Concerning claim 33, it is mentioned in the specification (see §[0091], last sentence of the published application US2005/0127843) that the plasma discharge is in the form of a “network of filaments” as described in the International Patent Application PCT/IB02/01001, published as WO02/076511. In this patent application, it is clearly stated how such a discharge in the form of a “network of filaments” can be obtained. For that purpose, the plasma surface treatment method is characterized in that the surface to be treated is excited or the plasma is

made to vibrate acoustically in order to create a relative wave motion between the plasma and the surface to be treated. Further concerning claim 33, the Examiner has correctly noticed that the signal corresponds to the current above mentioned in the claim.

The main prior art document used by the Examiner is Merard et al. (US2004/0035838). Though Merard et al. discloses the use of a plasma torch for treating a surface, the Applicants respectfully disagree with the Examiner that Merard et al. teach the simultaneous use of several torches as taught by the present invention. In fact, in relation to Figure 6 and paragraphs [0058] and [0059], Merard et al. discloses two decontamination stations 64 and 66 that are successively arranged on the kinematic system. Though each station 64 and 66 is equipped with a torch 68, it is also mentioned that *"each container undergoes two successive decontaminations."* The idea behind this is explained in the next sentence where it is explained the expected consequences of being able "to use a lower power for each plasma and to increase significantly the service life of the electrodes or to increase the pulse rate."

Thus the use of two torches is only disclosed in Merard et al. for successive decontamination operations with a specific goal, as explained above. For that purpose the generators disclosed must be arranged in series to achieve that desired advantage. Amended claim 19 of the present invention now clearly specifies that several plasma generators are used in parallel, each generator being designed for simultaneously carrying out a full treatment of a container, i.e. comprising only one step of decontamination. The goal of this feature is clearly exposed in the present invention, and consists of reducing the time of treatment. Therefore, amended claim 19 has to be considered as being novel in view of Merard et al.

Furthermore, the technical problem raised and solved by the present invention consists of implementing a device that optimizes the time for treating a huge number of containers.

Considering Merard et al.'s teaching, one skilled in the art will only understand that the need of two decontamination steps done in series by two generators, even if done on two containers at a time, will raise the overall time of treatment in comparison with a single generator treating one container at a time.

Therefore, it appears clear that Merard et al.'s device does not allow for the reducing of the time of treatment, but on the contrary increases it slightly. Thus, one skilled in the art will surely not be motivated to further consider Merard et al.'s teaching in order to reduce the time of treatment when considering implementing a device coping with industrial production rates as taught by the claimed invention.

In view of the different other prior art documents cited by the Examiner, the only one that could be potentially used by a man skilled in the art to significantly reduce the overall time of treatment is the Japanese kokai in the name of Hasegawa, which discloses a plasma generator with several outputs. Thus, one skilled in the art considering Merard et al. in view of Hasegawa might have the idea of implementing a device using one plasma generator with several needle like electrodes 3a, or two of such plasma generators in succession (not in parallel as explained before) as taught by Merard et al.

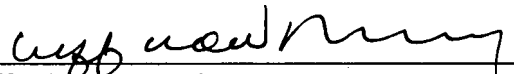
However such a combination still presents a major drawback in the case of a breakdown occurring in the plasma generator and/or when maintenance operations need to be carried out, then the production rate cannot be guaranteed.

To the contrary, the claimed invention (i.e. amended claim 19), thanks to the use of a plurality of plasma generators arranged in parallel whereby **each generator carries out a full treatment of a container simultaneously**, it is possible to guarantee that the production rate is

maintained, either in the case of a breakdown occurring in one device and/or when maintenance operations need to be carried out (see paragraph [0040], last sentence).

For all these foregoing reasons, Applicants request entry of the foregoing amendments to the Specification and Claims, reconsideration of the present Application in light thereof, and in light of the foregoing Remarks, and then allowance of all pending claims 19-29, 33, 35 and 36, as amended, over all the prior art of record.

Respectfully submitted,

By: 
Clifford W. Browning
Reg. No. 32,201
Krieg DeVault LLP
One Indiana Square
Suite 2800
Indianapolis, IN 46204
(317) 238-6203